

Claims 26 and 27 are not anticipated under 35 U.S.C. § 102(a).

Claims 26 and 27 were rejected under § 102(a) as anticipated by Node *et al.* (*J. Amer. Col. Cardiol.* 33:2 Suppl. A, pp. 2A, 1999). The Node *et al.* abstract was prepared under the direction of co-applicant, Dr. James K. Liao. Enclosed is a Declaration under 37 C.F.R. 1.132 stating that Dr. Liao is the correct co-inventor of the present application (along with Dr. Darryl Zeldin), and that the Node *et al.* abstract discloses subject matter derived from Dr. Liao rather than invented by Koichi Node. In addition, Node *et al.* was published within one year of the priority date of the present application (U.S. Patent application 60/148,434 filed August 11, 1999). Therefore, the § 102(a) rejection is improper, and Applicant respectfully requests that it be withdrawn.

Claims 10-19, 21, and 25 are not obvious.

Claims 10-19 and 25 were rejected as unpatentable over Node *et al.* in view of Zeldin *et al.* (*Mol. Pharmacol.* 50:1111-7, 1996) under 35 U.S.C. §103(a). Claim 21 was rejected under 35 U.S.C. § 103(a) as unpatentable over Node *et al.* in view of Zeldin *et al.* and further in view of U.S. Patent No. 5,593,990 or U.S. Patent No. 5,955,496.


In view of the remarks above, claims 10-19, 21 and 25 can no longer be deemed obvious in view of Node *et al.*, which is not prior art. Nor can those claims be obvious in view of Node *et al.* in combination with other references because Node *et al.* can not be relied upon as prior art. Therefore, the § 103(a) rejection is improper, and Applicant respectfully requests that it be withdrawn.

In summary, Node *et al.* is not prior art with respect to the present application. As a result, the §§ 102(a) and 103(a) rejections are improper, and claims 10-19, 21 and 25-27 which are free of the prior art should be allowed.

If any matters remain before a Notice of Allowance is issued, the Examiner is invited to telephone the undersigned at the number below.

Respectfully submitted,

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Marked-up Version of Amended Claims
Pursuant to 37 C.F.R. §§ 1.121(b)-(c)

1. (Cancel) [A composition, comprising
a therapeutically effective amount of a composition of matter selected from the group consisting of epoxyeicosatrienoic acids (EETs), epoxyeicosatrienoic acid metabolic products, epoxyeicosatrienoic acid and dihydroxyeicosatrienoic acid analogs, and combinations thereof, in a pharmaceutically acceptable excipient; wherein the therapeutically effective amount of the composition of matter reduces inflammation or an immunological disorder in a recipient or prevents cell death from hypoxia reoxygenation in a cell.]
2. (Cancel) [The composition of claim 1, wherein the epoxyeicosatrienoic acids are selected from the group consisting of [5,6]-EET, [8,9]-EET, [11,12]-EET, and combinations thereof.]
3. (Cancel) [The composition of claim 1, wherein the epoxyeicosatrienoic acid metabolic products are selected from the group consisting of the dihydroxyeicosatrienoic acids (DHETs) [5,6]-DHET, [8,9]-DHET, [11,12]-DHET, [14,15]-DHET, and combinations thereof.]
4. (Cancel) [The composition of claim 1, wherein the epoxyeicosatrienoic acid and dihydroxyeicosatrienoic acid analogs are selected from the group consisting of episulfide derivatives, sulfonamide derivatives, epoxyeicosadienoic acids, epoxyeicosamonoenoic acids, epoxyeicosanoic acids, analogs in which the olefins are replaced with acetylene groups, analogs in which the olefins are replaced with cyclopropane groups, analogs in which the epoxide moiety is replaced with an oxitane rings, analogs in which the epoxide moiety is replaced with a furan rings, and heteroatom analogs.]
5. (Cancel) [The composition of claim 5, wherein the epoxyeicosatrienoic acid and dihydroxyeicosatrienoic acid analogs are selected from the group consisting of RKB and KMR.]

6. (Cancel) [The composition of claim 1, further comprising an epoxide hydrolase inhibitor.]
7. (Cancel) [The composition of claim 6, wherein the epoxide hydrolase inhibitor is an amide, carbamate, or urea.]
8. (Cancel) [The composition of claim 1, further comprising an anti-inflammatory agent or an anti-oxidant agent.]
9. (Cancel) [The composition of claim 8, wherein the anti-inflammatory agent is selected from the group consisting of anti-inflammatory peptides, steroids, and non-steroid anti-inflammatory agents.]
20. (Cancel) [The method of claim 10, wherein cytochrome P450 epoxigenase is produced from a recombinant cytochrome P450 epoxigenase polynucleotide.]
22. (Cancel) [The method of claim 10, wherein the composition of matter is produced from a cytochrome P450 epoxigenase protein that has been provided to the subject.]
23. (Cancel) [The method of claim 22, wherein the cytochrome P450 epoxigenase is expressed from a recombinant cytochrome P450 epoxigenase coding polynucleotide that has been provided to the subject.]
24. (Cancel) [The method of claim 23, wherein the recombinant cytochrome P450 epoxigenase coding polynucleotide is expressed in endothelial cells of the subject.]
29. (Cancel) [The method of claim 28, wherein the composition of matter is produced from a cytochrome P450 epoxigenase protein that has been provided to the cell.]

30. (Cancel) [The method of claim 29, wherein the cytochrome P450 epoxigenase is provided by expressing a recombinant cytochrome P450 epoxigenase coding polynucleotide in the cell.]
31. (Cancel) [A method of screening for an anti-inflammatory compound, comprising:
- (a) administering to a cell a compound suspected of being an anti-inflammatory compound;
 - (b) assaying cytochrome P450 epoxigenase activity of the cell;
 - (c) comparing the cytochrome P450 epoxigenase activity of the cell with the cytochrome P450 epoxigenase activity of a cell to which the compound suspected of being an anti-inflammatory compound has not been administered, wherein an increased cytochrome P450 epoxigenase activity of the cell in step (a) as compared with the cytochrome P450 epoxigenase activity of the cell to which the compound suspected of being an anti-inflammatory compound has not been administered identifies the compound as an anti-inflammatory compound.]
32. (Cancel) [A method of screening for a compound that prevents cell death from hypoxia-reoxygenation, comprising:
- (a) administering to a cell a compound suspected of being a compound that prevents cell death from hypoxia-reoxygenation;
 - (b) assaying cytochrome P450 epoxigenase activity of the cell;
 - (c) comparing the cytochrome P450 epoxigenase activity of the cell with the cytochrome P450 epoxigenase activity of a cell to which the compound suspected of being a compound that prevents cell death from hypoxia-reoxygenation has not been administered, wherein an increased cytochrome P450 epoxigenase activity of the cell in step (a) as compared with the cytochrome P450 epoxigenase activity of the cell to which the compound suspected of being a compound that prevents cell death from hypoxia-reoxygenation identifies the compound as a compound that prevents cell death from hypoxia-reoxygenation.]

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8/13/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor Application of: Liao et al.

Art Unit: 1614

Application No. 09/634,369

Filed: August 9, 2000

For: ANTI-INFLAMMATORY ACTIONS OF
CYTOCHROME P450 EPOXYGENASE-
DERIVED EICOSANOIDS

Examiner: Cybille Delacroix-Muirheid

Date: June 26, 2002

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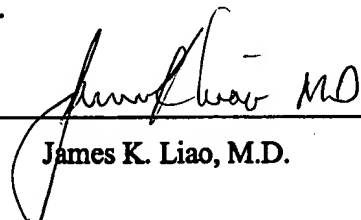
COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

DECLARATION OF JAMES K. LIAO, M.D. Under 37 C.F.R. §1.132

1. I, James K. Liao, M.D., am a co-inventor of the invention claimed in U.S. Patent Application No. 09/634,369.
2. I have read and understand the above-referenced patent application, including the pending claims, and the Office action dated March 13, 2002.
3. It is my understanding that in the Office action of March 13, 2002, claims 26 and 27 were rejected as anticipated by the Node and Liao abstract entitled "Anti-inflammatory Actions of Epoxygenase-Derived Eicosanoids," (*J. Amer. Col. Card.*, 33:2 Suppl. A, pp. 2A, 1999) (hereinafter "the Node abstract"). Claims 10-19, 21 and 25 were rejected as unpatentably obvious in view of the Node abstract in combination with other documents. The work disclosed in the Node abstract was performed by Koichi Node, whom I supervised and instructed. Koichi Node is not an inventor with respect to the claimed invention of the present application, because Koichi Node carried out experiments which I directed and supervised. Koichi Node was listed as a co-author of the Node abstract to receive credit for having collaborated in the research program. To the extent the Node reference anticipates or otherwise discloses any part of the invention claimed in the present application, it discloses my own work.

4. The subject matter of the pending claims, which is generally directed to the administration of EETs, DHETs, or analogs thereof to treat inflammation or an immunological disorder in a subject, were jointly invented by myself and co-inventor Dr. Darryl C. Zeldin. Therefore, all of the pending claims were commonly owned at the time of the joint invention. To the extent that the claims describe my joint invention with Dr. Zeldin, the aspect of the invention related to inhibiting expression of the cell adhesion molecule VCAM-1 and to inhibiting I κ B kinase (IKK) represents one aspect of my contribution to our jointly claimed invention.

5. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.


James K. Liao, M.D.

6/27/2002
Date